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09/639,450	08/15/2000	Cooper G. Urie	10992574-1	2871

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EXAMINER	
PHAM, THIERRY L	
ART UNIT	**PAPER NUMBER**
2624	2

DATE MAILED: 04/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/639,450	Applicant(s) URIE ET AL.	
	Examiner Thierry L Pham	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: Image forming apparatus with dynamic applications.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-9, 11-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Kageyama (U.S. 6333790).

Regarding claim 1, Kageyama discloses an image forming device (printer, fig. 6) comprising:

(1) a processor (MPU, fig. 6) configured to process executable instructions;

(2) a storage (ROM, RAM, memory devices, fig. 6) configuration configured to store image data, plural instruction components, and a dynamic application, wherein the instruction components (print processing part 2140, fig. 2, col. 6, lines 18-65) individually comprise plural executable instructions configured to cause the processor to perform an operation with respect to formation of images, and the dynamic application (spool control part 2130 performs spool control applications such as print waiting order, deleting print instructions, change in sequential order, col. 6, lines 28-39) comprises plural executable instructions (spool control part receives and stores print instructions, state references such as print waiting order and etc., col. 6, lines 28-40)

configured to cause the processor to associate the dynamic application with at least one of the instruction components (print instruction part, col. 6, lines 40-65) and to perform an operation with respect to the at least one associated instruction component;
(3) an input/output interface (I/F part 602, fig. 6 & 8) configured to communicate the image data and the dynamic application externally of the image forming device; and
(4) an engine (printer engine, fig. 6) configured to form images upon media responsive to the image data.

Regarding claim 2, Kageyama further discloses the device in accordance with claim 1 wherein the storage configuration is configured to store instruction components individually comprising plural firmware instructions (print instructions, fig. 2, col. 6, lines 18-39).

Regarding claim 3, Kageyama further discloses the device in accordance with claim 1 wherein the input/output interface (I/F cable, fig. 6 & 7, col. 9, lines 5-15) is configured to receive the dynamic application (print job instructions from host computer, col. 6, lines 28-32) from externally of the image forming device.

Regarding claim 4, Kageyama further discloses the device in accordance with claim 1 wherein the storage configuration comprises executable instructions configured to cause the processor to identify the presence of the dynamic application (col. 6, lines 28-65).

Regarding claim 5, Kageyama further discloses the device in accordance with claim 1 wherein the dynamic application includes executable instructions configured to cause the processor to identify the at least one instruction component (print instructions component, col. 6, lines 40-65).

Regarding claim 6, Kageyama further discloses the device in accordance with claim 1 wherein the dynamic application includes executable instructions configured to cause the

processor to store data with respect to execution of the dynamic application, and the input/output interface is configured to output the stored data (col. 6, lines 18-65).

Regarding claim 7, Kageyama further discloses the device in accordance with claim 1 wherein the dynamic application is configured to extract an instruction (receives and stores print instruction for a document job, col. 6, lines 28-40) from a data stream of the image forming device and the processor is configured to execute the extracted instruction.

Regarding claim 8, Kageyama further discloses the device in accordance with claim 1 wherein the dynamic application includes executable instructions configured to cause the processor to associate the dynamic application with an application program interface of the at least one associated instruction component (spool control part outputs the print data (instructions) to print processing component, col. 6, lines 28-65).

Regarding claim 9, Kageyama further discloses the device in accordance with claim 1 wherein the dynamic application includes executable instructions configured to cause the processor to establish a runtime linkage (printer operation information, fig. 10, col. 12, lines 25-45) of the dynamic application with an application program interface of the at least one associated instruction component.

Regarding claim 11, Kageyama further discloses the device in accordance with claim 1 wherein the dynamic application includes executable instructions configured to cause the processor to perform a test (monitors the status of the printer, col. 10, lines 17-24) of operations of the image forming device.

Regarding claims 12-19: Claims 12-19 are the method claims corresponding to the apparatus claims 1-8 (respectively) with similar limitations. The method claims are inherent and included by the operation of the apparatus claims. Please see claims rejection basis/rationale as described in claims 1-8 above.

Regarding claim 20, Kageyama discloses an image forming method comprising: (1) providing an image forming device (printer, fig. 6) including a processor (MPU, fig. 6) and a print engine (printer engine, fig. 6) configured to print images upon media; (2) providing plural instruction components (printer controller comprising plurality of instructions parts, fig. 2 & fig. 8) individually including plural executable instructions configured to cause the processor to perform an operation with respect to the formation of images; (3) receiving a dynamic application (instructions to spool data by spool control part, fig. 2, col. 6, lines 28-40) within the image forming device; (4) first identifying (receives and identify print instruction by spool control part, fig. 2, col. 6, lines 28-40) the dynamic application after the receiving; second identifying (instructions data are outputted to print processing part, fig. 2, col. 6, lines 28-40) at least one instruction component after the first identifying; (5) associating (fig. 2, col. 6, lines 18-65) the dynamic application with the at least one instruction component after the second identifying, the associating including establishing a runtime linkage (printer operation information including runtime linkage, fig. 10) of the dynamic application with an application program interface of the at least one instruction component, the dynamic application including plural executable instructions configured to cause the processor to perform an operation with respect to the at least one associated instruction component including storage of data corresponding to the operation; (6) outputting the stored data from the image forming device; and (7) disabling (deleting the spool operation by spool control part, col. 6, lines 28-40) the dynamic application.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kageyama as described in claim 1 above, and in view of Austin et al (U.S. 6665089).

Regarding claim 10, Kageyama does not explicitly disclose wherein the device in accordance with claim 1 wherein the dynamic application includes executable instructions configured to cause the processor to perform a Page CRC operation during execution of executable instructions within the associated instruction component comprising an imaging subsystem.

Austin, in the same field of endeavor for printing apparatus, discloses the dynamic application includes executable instructions configured to cause the processor to perform a Page CRC (Fig. 18, col. 12, lines 60-67 to col. 13, lines 1-30) operation during execution of executable instructions within the associated instruction component comprising an imaging subsystem.

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Kageyama as per teachings of Austin because of a following reason: (1) to reduce operating cost (Kageyama, col. 1, lines 30-42).

Therefore, it would have been obvious to combine Kageyama with Austin to obtain the invention as specified in claim 10.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents/publications are relevant to applicant's disclosure invention.

(1) U.S. 6337961 to Mori et al, disclose a print control method includes plurality of memory devices for storing dynamic instructions/applications, Fig. 2.

(2) U.S. 5832192 to Hino, discloses printer controlling apparatus and recording medium within the printer for storing plurality of instructions including dynamic instructions/applications, fig. 2.

(3) U.S. 6375297 to Hayashi, discloses printer control apparatus and a printer which includes plurality of storage devices for storing plurality of print operation instructions and dynamic instructions/applications, fig. 1.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thierry L Pham whose telephone number is (703) 305-1897 or

email Thierry.pham@uspto.gov The examiner can normally be reached on M-F (9:30 AM - 6:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K Moore can be reached on (703)308-7452. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-3900.

Thierry L. Pham

TP

January 28, 2004

GABRIEL GARCIA
PRIMARY EXAMINER